

**REMARKS**

This Response and the following remarks are intended to fully respond to the Final Office Action dated June 6, 2008. Claims 1-15 and 18-25 are currently pending. No claims were added or cancelled in this response. Claim 1 has been amended.

Applicants respectfully request reconsideration and withdrawal of the pending rejection in light of the following remarks.

**Preliminary Matters**

Claim 1 was amended to delete reference to lettered bullet points for the claim elements.

Claim 1 was also amended to correct a typographical error. These amendments are not intended to narrow the original scope of the claim in any manner.

**Rejection under 35 U.S.C. § 112, First Paragraph**

Claims 1-15 and 18-25 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Office Action states:

Claims 1-15 and 18-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. **This is a new matter rejection.** . . . Independent claim 1, upon which claims 2-15 and 18-25 ultimately depend, recites “at least one gasket” in line 5 of the claim, “at least one spacer” in line 7 of the claim. A review of the specification yields no recitation of either “at least one” or “a plurality of” spacers or gaskets, or a recitation of “spacers.” While Figures 4A shows two gaskets (labeled 127) and two spacers (labeled 129), and Figure 5B shows two gaskets 127 and four spacers 129, the specification does not show more than two gasket or four spacers. . . . **Thus, the instantly claimed “at least one spacer” and “at least one gasket” encompasses a plurality of gaskets and spacers that exceeds the number actually taught by the instant specification.** Therefore, the instantly claimed “at least one spacer” and “at least one gasket” constitute new matter.

See Office Action, paragraph 5. (Bold emphasis in original; underlining emphasis added.)

Applicants respectfully traverse the rejection and do not concede any characterizations of the pending application or claims set forth in the Office Action.

By stating that the term “at least one” will encompass any number that exceeds the number actually taught in the specification implies a disclosure would have to identify the exact number of claimed structures that are within the scope of the claim. There is no such requirement. Rather, the conventional understanding is newly added claim limitations can be supported in the specification “through express, implicit, or inherent disclosure.” See MPEP 2163(I)(B).

The specification teaches the spacer may be placed alone in any number of positions and enables the gasket 127 to seal but deform only to the extent of the height of the spacer. This structure allows the height or volume of the array hybridization chamber to be gauged. See specification, page 11, lines 16-30. It is implicit from this description and the accompanying drawings that “at least one spacer” includes any number of spacers that will fit on a substrate.

Similarly, the specification teaches that the gasket is designed to hold a certain hybridization solution. See specification, page 11, lines 4-6. The accompanying drawings illustrate one or two gaskets. The implication is that the substrate can hold as many arrays and gaskets that will fit on its surface. It is implicit that “at least one gasket” covers as many gaskets as will fit on the substrate.

Furthermore, there is no limitation to the size of the substrate. Accordingly, there is no limit to the number of gaskets or seals. It could be one or it could be many.

Consequently, “at least one gasket,” “at least one spacer,” and “at least one” or “a plurality of” spacers or gaskets is supported by the original disclosure. Applicants respectfully request withdrawal of this rejection.

**Rejection of Claims 1-3, 5, 6, 9, 13, and 18-23**

Claims 1-3, 5, 6, 9, 13, and 18-23 were rejected as being obvious over Dahm et al. (U.S. Patent No. 6,399,394) in view of Lyman (U.S. Patent No. 6,555,361). Applicants respectfully traverse the rejection and do not concede any characterizations of the pending application or cited references set forth in the Office Action.

**Pending Claims**

Claim 1 recites, “a thermoplastic substrate comprising a front side [and] a back side . . . at least one gasket interposed between said slide and said front side of the substrate; and at least one spacer.” The height of the spacer “is less than the height of the at least one gasket.”

**Cited References**

In sharp contrast to the pending claims Dahm directly teaches away from a spacer having a height less than a gasket. For example, although the claims in Dahm are not so limited, it teaches studs 50 guide gasket 60 to aid in correctly registering it with respect to cover 30, by fitting in the gaps between adjacent gasket ports portions. See col. 9, lines 34-36. Studs 50 also are positioned to be just outside the perimeter of substrate 10, and therefore also help in guiding substrate 10 into correct registration with gasket 60. See col. 9, lines 36-39.

Because studs 50 are used to guide substrate 10 into correct registration with gasket 60, studs 50 naturally have a height greater than gasket 60 so they can engage the side of the substrate when it is positioned over the gasket and cover and guide it into position. Therefore, Dahm directly teaches away from a spacer having a height less than a gasket and cannot be combined with another reference to form an obviousness rejection of the claimed combination of structures in claim 1.

The Office Action does not argue that Lyman teaches a spacer having a height less than a gasket. Indeed, Lyman also fails to teach or suggest such a spacer. Therefore, no combination of Dahm or Lyman will result in a combination that includes a spacer having a height less than a gasket. Applicant respectfully submits claim 1 is patentably distinct over the cited reference and request withdrawal of the pending rejection.

**Rejection of Claims 4, 7, 8, 10-12, 14, 15, 24, and 25**

Claims 4 and 7 were rejected as being obvious over Dahm in view of Lyman and further in view of Dickinson et al. (U.S. Pat. Pub. No. 2002/0102578). Claims 8 and 12 were rejected as being obvious over Dahm in view of Lyman and further in view of Gallagher et al. (U.S. Pat. Pub. No. 2003/0064507). Claims 10, 11, 24, and 25 were rejected as being obvious over Dahm in view of Lyman and further in view of Frye et al. (U.S. Patent No. 6,272,939). Claim 14 was rejected as being obvious over Dahm in view of Lyman and further in view of Wilding et al. (U.S. Patent No. 5,587,128). Claim 15 was rejected as being obvious over Dahm in view of Lyman in view of Frye and further in view of Wilding. Claim 23 was rejected as being obvious over Dahm in view of Lyman and further in view of Mogard et al. (U.S. Patent No. 6,216,905). Claims 24 and 25 were rejected as being obvious over Dahm in view of Lyman in view of Frye and further in view of Mogard. Applicants respectfully traverse these rejections and do not concede any characterizations of the pending application or cited references set forth in the Office Action.

Claims 4, 7, 8, 10-12, 14, 15, 24, and 25 depend from claim 1 and also include the limitation that the height of the spacer “is less than the height of at least one gasket.” As discussed above, Dahm teaches away from this element and thus cannot be combined with prior art to establish obviousness of a claimed combination that includes this structure. The other

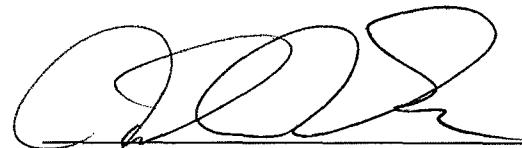
references cited in these rejections also fail to teach or suggest this element. Therefore, no combination of these references will result in the claimed invention.

Applicants respectfully submit that claims 4, 7, 8, 10-12, 14, 15, 24, and 25 are patentably distinct from the cited reference and request withdrawal of the pending rejections.

**CONCLUSION**

In view of the above amendments and remarks, Applicants respectfully submit that the claims are patentably distinct from the cited reference and request issuance of a Notice of Allowance. Applicants note that there may be reasons that the pending claims are patentably distinct from the cited references in addition to those set forth herein. Applicants reserve the right to raise any such reason in the future. If Examiner believes a telephone conference would advance the prosecution of this application, Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,  
MERCHANT & GOULD P.C.  
P.O. Box 2903  
Minneapolis, MN 55402-0903  
(612) 332-5300



John C. Reich  
Reg. No. 37,703  
JCReich/jle

Date: August 6, 2008